EXPLORE EVOLUTION AT THE UNIVERSITY OF MICHIGAN EXHIBIT MUSEUM OF NATURAL HISTORY

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Abstract

The Exhibit Museum of Natural History at the University of Michigan is one of six partner museums in the NSF-funded Explore Evolution project. Participating museums will tailor their involvement in different ways to achieve various institutional goals. This article is a short discussion of the Exhibit Museum's plans to use the Explore Evolution exhibits to enhance visitor understanding in its largest exhibit hall, as well as to supplement the new exhibits with related displays on University of Michigan research.

Introduction

How will the six museums in the Explore Evolution consortium leverage their participation in the project to advance their goals?[1] It may be too soon to tell about the project's research and youth outreach components, but at a September 2003 meeting of the group, the partner museums shared preliminary plans for installation of the exhibits. The Exhibit Museum of Natural History at the University of Michigan (UM) plans to improve its current permanent exhibits with the installation of Explore Evolution, and to extend the project exhibits with the addition of three kiosks on current UM research in evolutionary biology. This supports an important strategic goal for the Exhibit Museum, which is increasingly asked to support the research mission of the University by communicating UM research findings to the public.

The Hall of Evolution

Some of the Explore Evolution consortium member museums plan to install the complete set of exhibits in separate, dedicated gallery spaces. One museum plans to break up the set and install individual exhibit stations at various locations throughout its exhibit space. At the Exhibit Museum, the Explore Evolution exhibits will be integrated into the entry area for the Museum's largest and most popular exhibit hall, where they potentially will have a great impact on the visitor's experience.

The Exhibit Museum has approximately 22,000 square feet (2000 square meters) of exhibit space, of which about 9100 square feet (850 square meters) are devoted to the "Hall of Evolution" (Fig. 1). This large, two-story hall contains numerous complete skeletal mounts and extensive fossil displays and habitat dioramas, and is very popular because of the dinosaur displays. (Locally, the Museum is known fondly as "The Dinosaur Museum.") The Museum has been slowly updating the exhibits, by necessity over many years, because of the small size of its exhibit staff (2.25 FTE). Some of the displays are 40 years old; others are more recent. None of these displays, old or new, directly explains exactly what evolutionary science is, despite the name of the Hall. Exhibit text is written with the assumption that the visitor already understands the concept of evolution. This has not been a conscious choice; it is perhaps an artifact of assumptions made about the knowledge that university museum visitors bring with them. However, we are delighted to have the opportunity to correct this situation through participation in the Explore Evolution project.

The Explore Evolution exhibits will be installed at the Exhibit Museum in a large, funnel-shaped space at the entry to the Hall of Evolution. Visitors will have to walk through the Explore Evolution exhibits to gain access to the rest of the Hall. The introductory station of the Explore Evolution exhibits thus will serve as an introduction to evolutionary science for the entire hall. The seven Explore Evolution exhibit stations, which feature current research on organisms ranging from the HIV virus to prehistoric whales, will illustrate current thinking in evolutionary science. Visitors who take time to read, interact and think about the Explore Evolution exhibits will be better prepared to visit the rest of the Hall, where they may bring this new information to bear on exhibits that assume prior knowledge.

University of Michigan Research

As with many university natural history museums nationwide and internationally, the Exhibit Museum has been challenged by University administrators to demonstrate its contributions and relevance to the core teaching and research missions of the University. The Exhibit Museum has unusual difficulty quantifying its contributions because, as its name suggests, the Museum does not have its own collections, curators or faculty. Created in 1956 as an administrative entity separate from the four UM natural science research collections (the Museums of Zoology, Paleontology, Anthropology and the University Herbarium), the Exhibit Museum has been devoted to providing exhibits and educational programs in natural history and anthropology for the University community and the general public. Now there is increasing pressure on the Museum to serve as a "window" onto UM research, and to explore the use of media beyond the exhibits and school field trip

Fig. 1. The Hall of Evolution. Photograph by Dan Erickson.

programs that have been the Museum's bread and butter for decades. This pressure may result in considerable change at the Museum in the coming years.

In the near term, however, the Explore Evolution project offers a welcome opportunity to showcase and disseminate the research findings of UM paleontologist Philip Gingerich, curator and director of the Museum of Paleontology and professor of Geological Sciences. Gingerich's work on the evolution of whales is represented in one of the Explore Evolution stations, and therefore will be installed in five other museums around the midsection of the country, making it possible for a much wider audience to learn about his work. At the Exhibit Museum, the Explore Evolution station on Gingerich's work will serve as a preview to a more extensive exhibit on whale evolution located further back in the Hall of Evolution. Both exhibits present information about the fossil evidence Gingerich has found which shows that whale ancestors were terrestrial mammals. The inclusion of Gingerich's work in the Explore Evolution exhibits will help local audiences appreciate the significance of his research as it is juxtaposed with the work of other prominent American and international scientists.

Evolution in Action

In addition to Gingerich's research, the Exhibit Museum plans to highlight the work of another UM researcher in association with the Explore Evolution exhibits. Professor of Ecology and Evolutionary Biology David Mindell—curator in the Bird Division and director of the Museum of Zoology and Herbarium—and his students have been working on projects which apply evolutionary science as a tool to solve real-world problems. Mindell and the Exhibit Museum's Director of Education, Kira Berman, have received funding through the Faculty Seed Grant program of the UM Life Sciences, Values, and Society Program and the Office of the Vice President for Research for a project entitled, "Evolution in Action: A Museum-based Model for Communicating University Research Findings to the Public." The goal of the project is to help the public understand current UM research in evolutionary biology and genetics by initiating and extending public dialogue on the ethical and public policy implications of recent work in evolutionary biology. Three exhibit kiosks are planned, and after initial display in the Museum's

Rotunda lobby, the kiosks will be installed in association with the Explore Evolution exhibits to help visitors understand how evolutionary science has real-world applications in resource management, medicine, policy and law. The three research topics are conservation genetics, forensics and infectious diseases and artificial selection. Work on these exhibits will begin early in 2004, and should be complete by the time the Explore Evolution exhibits are ready for delivery. As space and opportunity permit, additional displays on current UM research may be added to the exhibit area at the entrance to the Hall of Evolution in the coming years.

Use of Thematic Content

The Exhibit Museum will launch the Explore Evolution exhibits in the context of an accompanying museum theme semester on evolution, following an established pattern of theme semesters during winter term.[2] Theme semester programming is targeted at a variety of audiences, including adults, University students, families and children, and includes a lecture series, winter and spring break drop-in activities, a Discovery Day, a partnership with public libraries in our region and collaborations with relevant partner organizations. We will make a pitch to the "Ann Arbor Reads" Committee to select a book on evolution for the annual community-wide reading program held each winter. In addition, we will update our ongoing "Prehistoric Life" school tours to incorporate information about the new exhibits into the tour curriculum.

Explore Evolution at the Exhibit Museum

The Explore Evolution project provides the UM Exhibit Museum the opportunity to enhance its current exhibits and to meet the institutional goal of showcasing UM research in the natural sciences. The new exhibits will provide the thematic organizing principle for new programming, both short- and long-term. The project's other components, audience research and outreach to youth, are as-yet unexplored opportunities for further strategic action. We look forward to exploring these additional opportunities to advance our goals through participation in the Explore Evolution project.

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Notes

[1] The NSF-funded Explore Evolution project is described in detail in the preceding article by project director Judy Diamond et al.

[2] Winter term theme semesters include Mars (2003), Biodiversity (2004), Ice Age and Mastodons (2005) and Evolution (2006).